GENERAL DESCRIPTION

Silicon NPN high frequency, high power transistors in
a plastic envelope, primarily for use in audio and general purpose

TO-3P(I)D
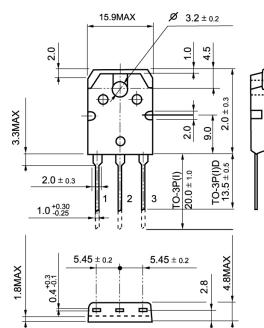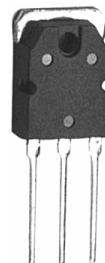
QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
V_{CBO}	Collector-emitter voltage peak value	$V_{BE} = 0V$	-	70	V
V_{CEO}	Collector-emitter voltage (open base)		-	70	V
I_C	Collector current (DC)		-	10	A
I_{CM}	Collector current peak value		-		A
P_{tot}	Total power dissipation	$T_{mb} \leqslant 25℃$	-	80	W
V_{CEsat}	Collector-emitter saturation voltage	$I_C = 4.0A; I_B = 0.4A$	-	2	V
V_F	Diode forward voltage	$I_F = 3.5A$	1.5	2.0	V
t_f	Fall time	$I_C=4A, I_{B1}=-I_{B2}=0.4A, V_{CC}=30V$	0.4	1.0-	μ s

LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_{CESM}	Collector-emitter voltage peak value	$V_{BE} = 0V$	-	70	V
V_{CEO}	Collector-emitter voltage (open base)		-	70	V
V_{EBO}	Emitter-base oltage (open colloctor)			5	V
I_C	Collector current (DC)		-	10	A
I_B	Base current (DC)		-	2.5	A
P_{tot}	Total power dissipation	$Tmb \leqslant 25℃$	-	80	W
T_{stg}	Storage temperature		-55	150	℃
T_j	Junction temperature		-	150	℃

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
I_{CBO}	Collector-base cut-off current	$V_{CB}=70V$	-	0.2	mA
I_{EBO}	Emitter-base cut-off current	$V_{EB}=5V$	-	0.2	mA
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1mA$	70		V
V_{CEsat}	Collector-emitter saturation voltages	$I_C = 4.0A; I_B = 0.4A$	-	3	V
h_{FE}	DC current gain	$I_C = 1A; V_{CE} = 5V$	50	240	
f_T	Transition frequency at f = 5MHz	$I_C = 1A; V_{CE} = 12V$	10	-	MHz
C_c	Collector capacitance at f = 1MHz	$V_{CB} = 10V$	350	-	pF
t_{on}	On times	$I_C=4A, I_{B1}=-I_{B2}=0.4A, V_{CC}=30V$	0.3		us
t_s	Tum-off storage time	$I_C=4A, I_{B1}=-I_{B2}=0.4A, V_{CC}=30V$	2.5		us
t_f	Fall time	$I_C=4A, I_{B1}=-I_{B2}=0.4A, V_{CC}=30V$	0.4		us